Sun™ StorEdge™ A5000 Installation Guide

for Windows NT Server 4.0

THE NETWORK IS THE COMPUTER™

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CHAPTER 1

Introduction

This chapter gives an overview of the Sun™ StorEdge™ A5000 Disk Array for Windows NT and lists the hardware and software prerequisites.

- About this Guide—page 1-1
- Product Deliverables—page 1-2
- Prerequisites—page 1-2
- Configuration Restrictions—page 1-3

About this Guide

The *Sun StorEdge A5000 Installation Guide for Windows NT Server 4.0* provides installation and setup information for connecting a Sun StorEdge A5000 Disk Array to a Windows NT server. Included is information for performing the following tasks:

- "Connecting the Disk Array to the Windows NT Host" on page 2-2
- "Configuring the Fibre Channel Host Bus Adapter" on page 2-3
- "Installing the Fibre Channel Driver on the Windows NT Host" on page 2-4
- "Verifying Configuration of the Host Bus Adapter Driver and Physical Disks" on page 2-8

Product Deliverables

The Sun StorEdge A5000 for Windows NT Server 4.0 software (Order Number A5000-NT4-B) is an option to the Sun StorEdge A5000 Disk Array and consists of the following:

- an Installation CD-ROM containing the Fibre Channel device driver
- User documentation:
  - *Sun StorEdge A5000 Installation Guide for Windows NT Server 4.0* (this document)
  - any `readme` files on the Installation CD-ROM

Prerequisites

Before installing this product, make sure that you have the following:

- Hardware Requirements—page 1-2
- Software Requirements—page 1-2
- Recommended Documentation—page 1-3

Hardware Requirements

The following hardware is required:

- A Sun StorEdge A5000 Disk Array
- A Sun StorEdge PCI FC-100 Host Adapter (Order Number X6729A)
- An NT server with an empty PCI slot for the Fibre Channel Host Bus Adapter card

Software Requirements

You must have the Windows NT Server 4.0 or Windows NT Server 4.0 Enterprise Edition operating system with Microsoft Service Pack 3 installed on your host machine.

Note – This product was tested with, and requires, Microsoft Service Pack 3.

Recommended Documentation

In the course of installing, configuring, and using the Sun StorEdge A5000 Disk Array for Windows NT, you may find it useful to refer to the documentation that came with the following:

- your disk array (especially the *Sun StorEdge A5000 Hardware Configuration Guide* and the *Sun StorEdge A5000 Installation and Service Manual*)
- your server
- the Windows NT operating system (especially the *Microsoft Windows NT Server Start Here: Basics and Installation* manual and your disk administration documentation, such as the *Microsoft Windows NT Technical Support* manual)

Configuration Restrictions

You should be aware of the following configuration restrictions when planning the connection between your NT server and the Sun StorEdge A5000 Disk Array:

TABLE 1-1 Configuration Restrictions

Maximum number of active disk arrays per host	4
Maximum number of active disk arrays per host bus adapter	1
Maximum number of active host connections per Fibre Channel loop	2
Maximum number of active host connections per disk array	2

CHAPTER 2

Installation

This chapter describes how to install the Sun StorEdge A5000 Disk Array for Windows NT. The installation process consists of the following tasks:

1. Configuring the Disk Array—page 2-1
2. Connecting the Disk Array to the Windows NT Host—page 2-2
3. Configuring the Fibre Channel Host Bus Adapter—page 2-3
4. Installing the Fibre Channel Driver on the Windows NT Host—page 2-4
5. Verifying Configuration of the Host Bus Adapter Driver and Physical Disks—page 2-8

Configuring the Disk Array

Use the information in *Sun StorEdge A5000 Installation and Service Manual* and the *Sun StorEdge A5000 Hardware Configuration Guide* to configure the disk array.

Connecting the Disk Array to the Windows NT Host

Physically connect the disk array to your Windows NT host system:

Note – For help with this task, refer to steps 1, 2, 3, 5, 6, and 7 in "Connecting Fibre Optic Cables" on page 2-4 of the *Sun StorEdge A5000 Installation and Service Manual*. (Step 4 of that procedure does not apply to Windows NT.)

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1. **Power off your Windows NT host system and your disk array.**
2. **Install the Fibre Channel host bus adapter in an empty PCI slot in your host.**
3. **Attach the disk array using the fibre cables that came with it.**
4. **Continue with the next section, "Configuring the Fibre Channel Host Bus Adapter".**

Configuring the Fibre Channel Host Bus Adapter

Configure the Fibre Channel host bus adapter, if applicable:

1. **Power on your Windows NT host and your disk array.**
   - If you see a message prompting you to press `Alt-Q` to launch the `Qlogic Fast!UTIL`, your Fibre Channel host bus adapter has BIOS on it. Continue with this procedure to configure your host bus adapter.
   - If you don't see such a message, proceed to next section, "Installing the Fibre Channel Driver on the Windows NT Host" on page 2-4.
2. **Respond to the prompt by pressing** `Alt-Q`**.**
3. **Select** `Configuration Settings` **and then press Enter.**
4. **Select** `Host Adapter Settings` **and then press Enter.**
5. **Select** `Host Adapter BIOS` **and make sure that the setting is Disabled; if necessary, press the Enter key to toggle the setting. (Disabling the host adapter BIOS disables the ROM BIOS and frees space in upper memory.)**
6. **Press the Escape key twice.**
7. **Select** `Save Changes` **and then press Enter.**
8. **Select** `Exit Fast!UTIL` **and then press Enter.**
9. **Select** `Reboot system` **and then press Enter.**
10. **Continue with the next section, "Installing the Fibre Channel Driver on the Windows NT Host".**

Installing the Fibre Channel Driver on the Windows NT Host

After the host reboots the operating system, proceed as follows to install the Fibre Channel driver.

1. **Select** `Start` → `Settings` → `Control Panel` → `SCSI Adapters`. FIGURE 2-1 **shows a typical SCSI Adapters window.**

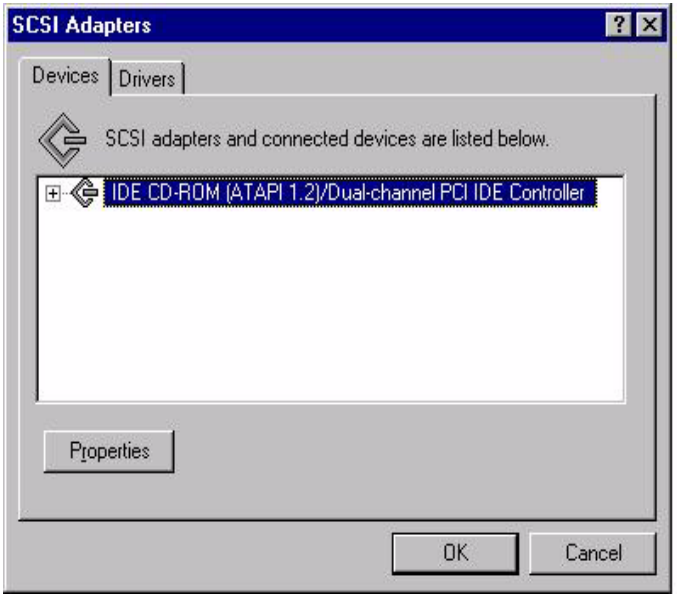

FIGURE 2-1 SCSI Adapters window

2. **From the SCSI Adapters window, select the** `Drivers` **tab.** FIGURE 2-2 **shows a typical Drivers listing.**

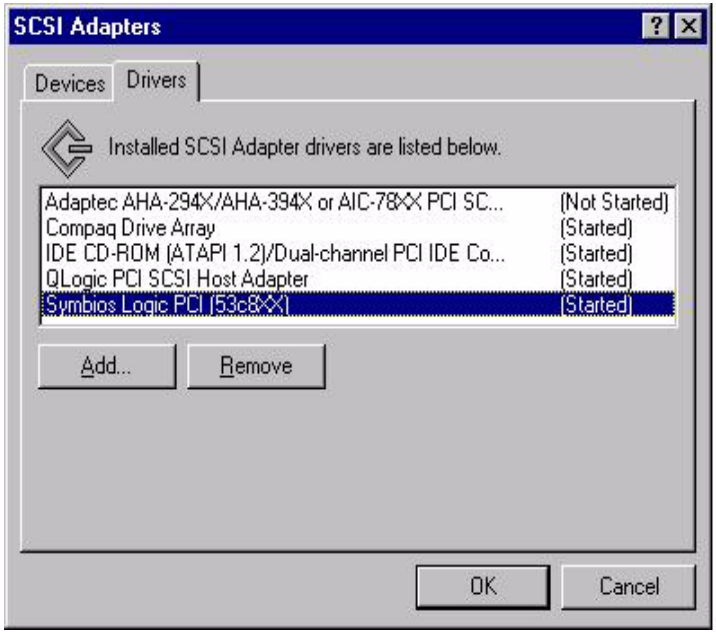

FIGURE 2-2 Drivers Tab of SCSI Adapters window

3. **Click the** Add **button below the list of installed drivers.** FIGURE 2-3 **shows the Install Driver window.**

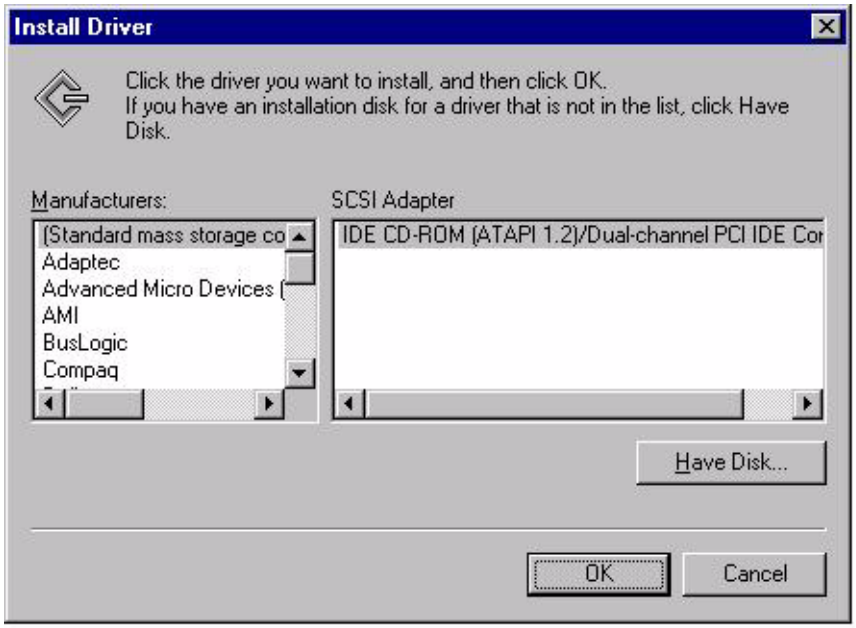

FIGURE 2-3 Install Driver window

4. **Click the** Have Disk **button.** FIGURE 2-4 **shows the Install from Disk window.**

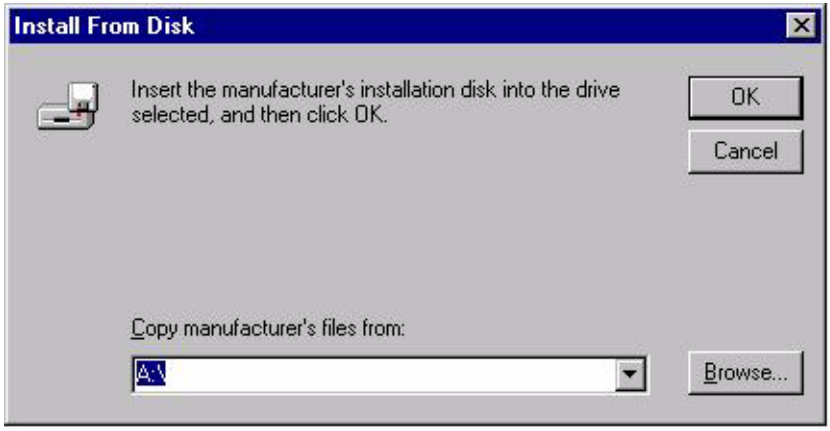

FIGURE 2-4 Install From Disk window

5. **Specify the location of the driver files:**
   a. **Insert the Installation CD-ROM into the drive.**
   b. **Click** Browse**, select your CD-ROM drive, and then specify the path:** /Qla2100F/Nt/Oemsetup
   c. **Click** OK**.**
   d. **Select the driver and then click** OK**.**
6. **Reboot the system so that your changes will take effect:**
   a. **When prompted, click** Yes **to restart.**
   b. **Click** OK **in the SCSI Adapters window.**
7. **Continue with the next section, "Verifying Configuration of the Host Bus Adapter Driver and Physical Disks".**

Verifying Configuration of the Host Bus Adapter Driver and Physical Disks

Verify that your Windows NT host can see the Sun StorEdge A5000 disks.

1. **Select** `Start` → `Settings` → `Control Panel` → `SCSI Adapters`**.**
2. **Click on the entry for the QLogic QLA2000/QLA2100 host bus adapter and then click on the (+) to the left of the Bus number.**

Note – Under certain circumstances, the SCSI Adapters utility under the Control Panel may not report accurate information.

If the QLogic host bus adapter and disks are not displayed in the `Devices` tab of the SCSI Adapters window, select the `Drivers` tab and verify that the QLogic QLA2000/QLA2100 driver is started; if the driver is not started, contact your Customer Service representative for troubleshooting assistance.

If the QLogic driver is started, run the Windows NT Disk Administrator and verify that it correctly displays the number and sizes of all your disks.

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3. **As shown in** FIGURE 2-5**, you should see each device that is attached to the Fibre Channel host bus adapter. (In this case, you will see all of the devices that your disk array contains.)**

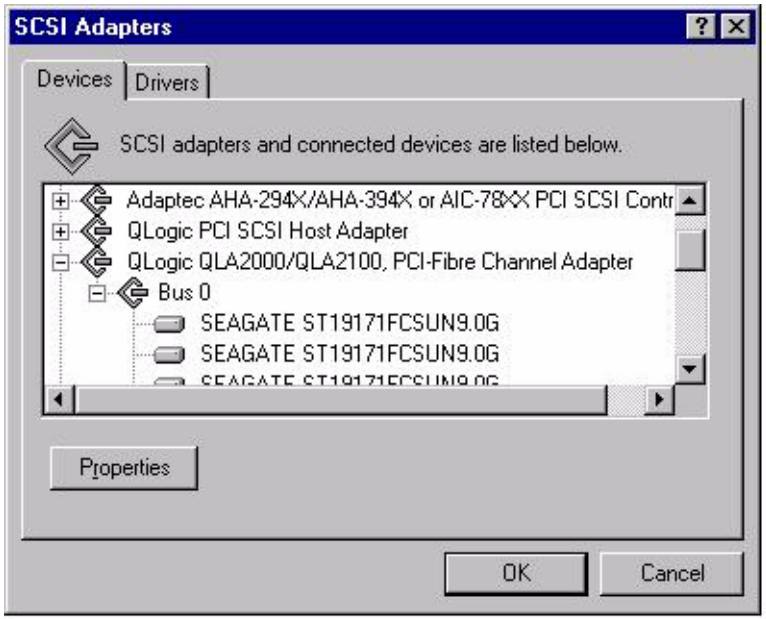

FIGURE 2-5 List of SCSI Devices

4. **Once the disks are recognized, use the Windows NT Disk Administrator to configure the logical disks as desired.**

Note – For help with this task, refer to your documentation about Windows NT disk administration (for example, the *Microsoft Windows NT Technical Support* manual).